

The Report

The combined ASIOACG 12 – INSPIRE 8 meeting

20th – 21st September 2017,

New Delhi, India.

1. Introduction.

1.1 History of the meeting.

1.1.1 The combined twelfth meeting of ASIOACG and eighth meeting of INSPIRE were hosted by Airports Authority of India at New Delhi on 20th & 21st September, 2017. The meetings were held back to back with fifth meeting of Bangladesh India Myanmar Thailand Coordination Group (on 18th September) and seventh meeting of Bay of Bengal Arabian Sea Indian Ocean Coordination Group (on 18th and 19th September 2017).

1.1.2 The purpose of the meeting was to review the work undertaken by earlier meetings of ASIOACG and INSPIRE, discuss issues presented to the meeting by members under various agenda items and also to chart out a work program for the next year and finalise action items for INSPIRE and ASIOACG members. The previous combined meeting of ASIOACG/11 and INSPIRE/7 was held at Magaliesberg, South Africa in November 2016.

1.1.3 This report provides a summary of the outcomes of the combined ASIOACG/12 and INSPIRE/8 meeting.

1.2 Inauguration and Attendance

1.2.1 The inaugural ceremony of all the four meetings was held on 18th September 2017. Dr Guruprasad Mohapatra, Chairman, Airports Authority of India inaugurated the meetings. Mr A K Dutta, Board Member (Air Navigation Services), AAI was also present in the inaugural session. At the beginning of the session, Mr Mukesh Chand Dangi, ED ASM, AAI gave information about all the four groups, their background, purpose and achievements. Mr A K Dutta welcomed all the delegates to the meetings and expressed pleasure that first ever combined meetings of all four groups are being hosted by AAI. He expressed hope that the combined meetings will generate synergy that would help in improving the safety and efficiency of traffic flows. He drew attention of the delegates towards spike in LHDs and emergence of hotspots in airspace and urged them to work towards reducing the LHDs and on their mitigation strategies that would help to achieve the target levels of safety for the air space. He also expressed satisfaction about participation of two safety agencies MAAR and BOBASMA and their work towards safety analysis. Dr Guruprasad Mohapatra, Chairman AAI in his inaugural address mentioned the good work done by all the groups and the worldwide recognition the groups had received. He said that with the success, the expectations of the aviation community from the groups have increased and he expressed confidence that with the collaborative efforts BOBASIO, BIMT, ASIOACG & INSPIRE will scale new heights in their field of work. Dr Mohapatra, also encouraged delegates to find some time to experience the sights and sounds of historical city of Delhi and its environs.

1.2.2 The meeting was attended by representative participants from ANSPs of India, Maldives, Mauritius, and Seychelles. The participants also included delegates from ANSPs of Bangladesh and Nepal. The member airlines Air Mauritius, Kenya Airways, Etihad Airways and IATA also attended the meeting. The list of participants is shown as **Attachment A** to this report.

1.3 **Officers and Secretariat**

1.3.1 Mr. M C Dangi (Chair ASIOACG), Executive Director (Air Space Management), AAI chaired the meetings along with Mr Rajiv Kumar Saxena, (Chair INSPIRE), General Manager (Air Traffic Management, AAI Mumbai. Mr Ajay Bhaskar Joshi, Joint General Manager (Air Traffic Management) was the secretary to the meetings.

1.4 **Documentation and Working Language**

1.4.1 The working language of the meeting and the language for all documentation was English. Eight working papers, Six information papers and three Powerpoint Presentations were considered by the meeting. A brain storming session on carbon emission savings initiatives was also conducted.

1.4.2 A list of the papers is shown as follows,

List of Information Papers.

S.N.	Agenda Item	Title	Presented By
IP/1	1	Tentative list of IPs and WPs	Secretariat
IP/2	3	Trial Operation so Delhi Airspace Management Cell	AAI
IP/3	3	Airspace Management Initiatives by India	AAI
IP/4	6	PBN Implementation in Indian Terminal Airspace	AAI
IP/5	6	Initiatives for improving HF Communication Issues in India Airspace	AAI
IP/6	9	Report on AAMA-SCM meetings	Secretariat
IP/07	2	Status update on safety, capacity and efficiency	Maldives

List of Presentations

SN	Agenda Item	Subject	Presented By
PT01	2	ATM Updates	ATNS, South Africa
PT01	3	SKYEREV360	AAI
PT02	3	Mitigation of Wake Turbulence in Cruising Phase	Jet Airways
PT03	9	Upper Airspace UPR Zone	IATA
PT03	2	Carbon Emission Saving Initiatives	Etihad Airways

List of Working Papers.

S.N.	Agenda Item	Title	Presented By
WP/1	1	Provisional Agenda	Secretariat
WP/2	2	AAI's ACDM System	AAI
WP/3	3	Proposal for ATS Routes between Mumbai and Sana FIR	AAI
WP/4	3	Action Plan to update ICARD Database and resolution of duplicated 5LNCs	AAI
WP/5	2	Economic impact of FLAS within the Mumbai FIR	Kenya Airways
WP/6	4	Analysis of Large Height Deviations in BOBASIO airspace**	BOBASMA
WP/7	4	SAR agreements between India and Neighbouring States**	AAI
WP/8	6	AIDC implementation in India with adjacent ATS units in the sub region and the issues thereof**	AAI
WP/9	7	UPR originating at waypoint KITAL on Mumbai/Muscat FIR boundary**	India

** also listed as WP/05, WP/06, WP13 & WP/15 of BOBASIO/7 respectively.

2. Report on Agenda Items

2.1 Agenda Item 1: Adoption of Agenda

The meeting was presented with the provisional agenda which had been prepared by ASIOACG secretariat in consultation with ASIOACG and INSPIRE chair and circulated along with the invitations. The meeting adopted the draft agenda as the agenda of the meeting:

Agenda Item 1	Adoption of Agenda
Agenda Item 2	Update from ANSPs, Airspace Users & other industry organizations including updates on open action items from previous meetings.
Agenda Item 3	ATM issues - including: Reduced Horizontal Separation Air Traffic Flow Management
Agenda Item 4	Coordination issues – including: Review of LOAs between different ANSPs SAR LOAs between different states. AIDC.
Agenda Item 5	Skill Development and Skill Enhancement of ATS Personnel

Agenda Item 6	Communication/Navigation/Surveillance issues – including: Performance Based Navigation (PBN), Data link Services, FIT/CRA, and Surveillance data sharing amongst ANSPs.
Agenda Item 7	Review of ASIO UPR zone and follow-up actions
Agenda Item 8	Review of INSPIRE Strategic Plan
Agenda Item 9	Updates on ASIOACG INSPIRE Work Programme V2.0
Agenda Item 10	Summary of outcomes of BOBASIO, SAIOACG & Other Meetings affecting APAC/MID East/AFI Regions (e.g. meetings of CANSO, ICAO, IATA etc)
Agenda Item 11	INSPIRE Annual Report 2017
Agenda Item 12	Review and Update List of Open Action Items
Agenda Item 13	Appointment of INSPIRE Chairman for 2018
Agenda Item 14	Any other business including meeting of ASIOACG 13 and INSPIRE 0 and inclusion of other partners in ASIOACG and INSPIRE.

2.2 Agenda Item 2: Update from ANS Providers, Air Space Users, and other industry organizations.

- i. Maldives informed the meeting through IP/7 about safety, capacity and efficiency initiatives in Maldives. The capacity at Male Velana International Airport is being built-up through a new code F runway parallel to the existing runway. The existing runway will be used as a parallel taxiway. This will enhance aerodrome capacity to accommodate traffic growth for next 15 years. Additional parking bays are also being constructed.

Maldives has started using ADS-B to enhance ATS surveillance capability in Male FIR from 7th February 2016.

In the UPR Zone, ADS-B provides coverage from Mumbai FIR up to 60-50 NM from Melbourne FIR. The system is available for use, alone or in combination with Male radar for ATS surveillance services including vectoring and separation commensurate with RADAR.

Maldives is making efforts to complete the airworthiness approval for all locally registered aircraft already equipped with ADS-B. Full implementation of ADS-B out carriage is targeted for 2020. The paper also informed that Maldives is amongst the APAC countries that have successfully achieved the target set for PBN implementation.

The paper also informed that AIDC trials/tests between Male and Mumbai/Chennai/Colombo FIRs have been successful.

The paper informed that Maldives will be removing existing restrictions of UPR flights to enter/exit Male FIR through full degree waypoints only and will be allowing UPRs to enter/exit Male FIR via waypoints expressed in decimals of degrees. The IP also informed that MALE is ready to implement 50 Nm longitudinal separation for RNP10 flights.

It was decided in the meeting by India and Maldives to implement 50 Nm longitudinal separation between RNP10 flights on ATS route L894 from 1st November 2017.

The initiatives of Maldives were appreciated by all participants.

- ii. Airports Authority of India informed the meetings about its A-CDM system through WP/02. The paper discussed the implementation details of the A-CDM system at CSIA Mumbai and on-going efforts in paving way for implementation of A-CDM System at other airports in India.

Salient features of the project are:

- a) Automatic calculation of TSAT (Target Start up Approval Time).
- b) Flight Data processing, independent of ATC Automation System (AT3).
- c) Real time information sharing among stakeholders (Airport operator, Aircraft operators, Ground Handlers, ATC) through dedicated customized application HMI.
- d) Real time information sharing among stakeholders and other users, through ACDM website.
- e) NOTAM Application: All India NOTAMs processed automatically.

The paper discussed data sources, output, milestones, challenges, solutions and benefits of the system. One of the studies has indicated that the cumulative daily fuel saving is about 2835 minutes (approx. 47 hours) of Code- 'C' aircraft on ground. For this study Code-'C' aircraft were considered as 85% of aircraft operations at Mumbai airport are of this category.

This taxi-time saving has resulted into significant reduction in fuel consumption and carbon emissions:

- A Code-'C' aircraft consumes approximately 12 Kg fuel per minute during taxi with frequent breaking action. This 2835 minutes of daily taxi-time amounts to $2835 \times 12 \times 365 = 12417300$ Kg, i.e. 12417 Tonnes of annual fuel saving.
- This results in approximately 39487 Tonnes of lower CO₂ emissions per annum. ($12417300 \times 3.18 / 1000 = 39487$ Tonnes of CO₂).

Implementation activities are on at following airports to operationalize ACDM by March 31, 2018:

- a) Chennai International Airport, Chennai.
- b) Netaji Subhash Chandra Bose International Airport, Kolkata.

2.9.2 ACDM implementation at other major airports will be taken up after Chennai and Kolkata.

- i. The in-house team of Airports Authority of India (AAI) is looking after implementation of ACDM at all the major airports in India. The team has taken up the implementation from planning stage through programming, development, testing, upgrading and maintenance. Due to its expertise in all the project phases, AAI can extend any kind of support for ACDM project.

IATA expressed happiness over AAI's A-CDM system and advised other ANSPs that this is the right time for them to start thinking about A-CDM implementation at Kathmandu, Male, Dhaka etc. IATA also pointed out to AAI that the ACDM and systems in Delhi and Mumbai differ in some aspects. It is important that the ACDM terminology and procedures should be synchronized and harmonized world over. AAI pointed out that they use Eurocontrol terminologies however it would try to synchronise the Delhi and Mumbai ACDM systems removing the differences.

- ii. Kenya Airways presented WP/05 on the topic "Economic impact of FLAS within the Mumbai FIR". The paper noted that though the revision of westbound FLAS to FL320 has given some relief, the imposition of FLAS results in unnecessary fuel burn and carbon emissions. The paper noted that for 62% westbound flights and 38% eastbound flights FLAS was not imposed, better percentage was expected. AAI informed that FLAS is not applied for ADS-C/CPDLC capable flights coming via Mogadishu FIR. But considering LHD data and hotspots on the western boundary of Mumbai FIR, FLAS is necessary tool as indicated by safety agencies, MAAR and BOBASMA.

2.3 Agenda Item 3: ATM issues - including: Reduced Horizontal Separation, Air Traffic Flow Management.

- i. WP/3 by AAI on Proposal for ATS Routes between Mumbai and Sanaa FIR. AAI had proposed three new RNP10 routes between Africa and Asia on 12th November 2015. The PfA to BANP was submitted to ICAO APAC office on 12th November 2015. In the AAMA/SCM/1 meeting hosted by India in January 2017, ICAO APAC Secretariat presented the proposal. ICAO-MID agreed to follow up the proposal with Yemen authorities. In May 2017 India attended the AAMA/SCM/2 meeting at Cairo and in the meeting Sanaa suggested realignment of the RNP 10 ATS Route M507 50 NM North of G450 between Mumbai & NABIL and proposed a new RNP 10 route south parallel to UL425 from ANGAL.
- ii. In a bilateral meeting between India & Sri Lanka held in July, 2016 Sri Lanka proposed for realignment of M641 from DOGAR (Melbourne/VCBI FIR) and TVM/ANODA clear of VRMM airspace as it would benefit in terms of decongestion of Colombo Airspace and Less GC distance.
- iii. Combining the proposal of Yemen and Sri Lanka, the proposal to establish a new RNP 10 ATS Route south of UL425/P890 from ANGAL (Mumbai/Sanaa FIR) to DOGAR (Colombo/ Melbourne FIR) through Mumbai/Chennai FIR was presented through WP/3. AAI requested the meeting to accord approval for realignment of M507, the establishment of new RNP 10 ATS Route south of UL425/P890 between ANGAL & DOGAR in Mumbai, Chennai & Colombo FIR, accord approval for withdrawal of ATS Routes T940, G450, B459, UM551 & UL 425 (over Arabian Sea) in Mumbai & Chennai FIR consequent to the establishment of new RNP10 ATS Routes, approval for withdrawal of ATS Route Segment of P323 between ALGIS & DONSA in Mumbai FIR, and authorize India to submit the PfA to BANP to ICAO APAC on behalf of the States. The meeting endorsed all the above approvals.
- iv. WP/04 was presented by AAI on Action Plan to update ICARD Database and resolution of duplicated 5LNCs. The WP presented by AAI, brought to the notice of meeting the

state letter AN 11/45.5-17/101 dated 11 August 2017 issued by ICAO APAC office on the subject. ICAO has identified a number of issues related to the five-letter name-code (5LNC) uniqueness, continuing to create difficulties causing potential safety-related issues, which include:

- a) Significant number of duplicated codes,
- b) Similar sounding codes in close proximity or on the same flight plan route,
- c) Differences between 5LNC data registered in ICARD and published in national Aeronautical Information Publications (AIPs).

ICAO urges States to implement the five-letter name-code (5LNC) Duplicate Resolution Rules and submit updated information on 5LNCs on priority basis.

The WP informed the meeting that as ANSP of India, AAI has initiated action to correct anomalies mentioned above within its airspace. The WP also proposed an action plan to resolve anomalies regarding waypoints on FIR boundaries with neighbouring states. A total number of 89 waypoints have been established between India and the neighbouring FIR States, out of which 9 5LNCs have not been registered in ICARD, 13 5LNCs have been duplicated in other regions, and most of the 5LNCs need synchronization between AIPs of the concerned States and/or ICARD.

The WP proposed the following action plan to update ICARD in respect of common FIR waypoints:

- a) States may nominate a Point-Of-Contact (POC) who will be vested with authority to coordinate directly with the POC of other affected States in matters related to ICARD updating.
- b) Assess coordinates of FIR boundary waypoints which are found to be different in the AIP of the affected States and agree on a common set of coordinates.
- c) Approach ICAO RO for correction of waypoint coordinates in ICARD, where required.
- d) Agree on common AIRAC date(s) for publication of the revised waypoint 5LNC and/or coordinates

It was proposed to complete the synchronization process before 30 June 2018. The meeting agreed to the proposed action plan. It was agreed that ANSPs will nominate POC by 15th October 2017 and complete the synchronization process by 30th June 2018. From AAI Mr D Dilipkumar (Email ID ddilipkumar@aai.aero) was nominated as POC and states were to inform POC to him via email.

- v. AAI presented IP/02 on trial operation of Delhi Airspace Management Cell. The Trial operation of Delhi AMC was conducted from 27 February to 10 March 2017 at the Central Command Centre (CCC) of the Air Traffic Flow Management (ATFM) located in the New ATS Complex, Indira Gandhi International (IGI) Airport, New Delhi. Representatives of Indian Air Force (IAF), Indian Navy, Airports Authority of India (AAI),

Airline Operators and Airport Operators participated in the trials. AAI team consisted of officers from ASM and ATFM streams.

Prior to commencement of trial operations, a Standard Operating Procedure (SOP) was prepared and accepted by all participating agencies. The SOP contained detailed

procedures for day-to-day coordination between military & civil ATC units and Delhi AMC, pre-tactical allocation of TSA, TRA and CDR and promulgation of allocation details through Airspace Use Plans (AUP) and Updated Airspace Use Plans (AUP).

Pre-tactical allocation for holidays and weekends were conducted on the last working day prior to the closure of the AMC, and AUPs pertaining to these days were issued on the last working day.

Delhi AMC also attempted a limited number of adhoc airspace allocation for military, in which the military applied to the AMC for allocation for military, in which the military applied to the AMC for allocation of airspace boxes at random, with reduced notification time than the normal requirement of 7 days. The live trials highlighted some important issues which need to be addressed before AMCs can be established on permanent basis. The pre-requisites include:

- a) Reliable and fast communication facilities between the Military ATC Units and AMCs
- b) Adequate number of qualified and trained military & civil ATC personnel to man the AMCs
- c) Faster mechanism for dissemination of Airspace Use Plans (AUP) and Updated Airspace Use Plans (AUP)
- d) Letters of Agreement (LoA) between military and civil authorities on pre-tactical and tactical airspace management by AMCs

The IP informed the meeting that efforts are underway to establish at least one RAMC along with the NAMC on permanent basis before 31 December 2017.

All the participants of the meeting appreciated the efforts made by AAI under FUA.

- vi. AAI also presented IP/03 on Airspace Management Initiatives in India. The paper informed the meeting about national initiatives like National Civil Aviation Policy, Regional Connectivity Scheme and Flexible Use of airspace. The initiatives taken up by AAI like PBN implementation, airspace harmonization for seamless air traffic services, ATFM, Infrastructure enhancement, and safety initiatives were also discussed through the paper.
- vii. Jet Airways made a presentation on Mitigation of Wake Turbulence in Cruise Phase of flights. The presentation put forward a case study of a Challenger 604 aircraft that on 7th January 2017 passed 1000 feet below an opposite direction A380 aircraft and suffered extensive damage. The presentation urged the meeting to acknowledge that the wake of A380 aircraft in RVSM airspace is a threat to medium and light aircraft within 20 Nm even with 1000 Ft separation. The presentation also proposed that airlines and ANSPs should formulate strategies to mitigate this threat. ANSPs can adopt a strategy to warn the medium and light aircraft that are likely to pass an A380 aircraft with 1000 ft separation and airlines can adopt a strategy to fly 2 Nm offset into the wind in such cases. The meeting very much appreciated the presentation and agreed with the proposals put forward in it. All the ANSPs agreed that to start with all the controllers will be sensitised with the threat regarding A380 wake and will complete the sensitisation by 30th November 2017.

viii. AAI made a presentation on SKYREV 360. This joint venture of AAI and IATA facilitates the RNFC calculations and collections for ANSPs.

2.4 Agenda Item 4: Coordination issues – including: Review of LOAs between different ANSPs and SAR LOAs between different states. AIDC.

Revised LOA for Male and Chennai FIR including AIDC implementation was signed between MACL and AAI during the course of meeting.

LOA for AIDC trials between Male and Mumbai FIRs commencing from 15th October 2017 was also signed between MACL and AAI.

Revised LOA for Mumbai and Seychelles FIR was signed between AAI and SCAA.

Mauritius and India as well Maldives and India also exchanged draft of revised LOAs for discussions and later finalising them.

i. WP/6 by AAI on Analysis of Large Height Deviations in BOBASIO airspace.

The WP presented by Bay of Bengal Arabian Sea Indian Ocean Safety Monitoring Agency presented an analysis of the Large Height Deviation reports filed by Chennai, Delhi, Kolkata and Mumbai FIRs during the period January to June 2017. The paper also presented the initiatives taken by BOBASMA/AAI to reduce the occurrence of LHDs due to errors in coordination between ATC Units. BOBASMA being the nodal point for collection and submission of LHD reports from the Indian ACCs/OCCs had collected and submitted 176 reports of Large Height Deviation that occurred during the period January to June 2017. The reports were as follows,

S. No	Area Control Centre	Number of LHD Reports	LHD Categories	
			B	E
1	Chennai	47		47
2	Delhi	1	1	
3	Kolkata	20		20
4	Mumbai	108		108
Total		176	1	175

The paper provided analysis of errors with time duration, interfaces at which the LHDs have been reported and the categories of error. The WP also presented the efforts being made by BOBASMA/AAI towards reducing the LHD occurrences. These efforts include,

A) Hosting and participating in Special Coordination meetings. AAMA-SCM at Mumbai and Cairo, MIDPIRG ATM SG meeting at ICAO Cairo and IIM-SCM at Chennai.

B) Engaging AIDC capable centers like Male, Muscat, Kualalumpur for AIDC implementation

C) Forming LHD taskforce at Mumbai to coordinate with similar taskforce at Muscat in resolving LHDs.

The future plans include,

A) Improving surveillance over oceanic airspace through ADS-B at Agatti and Campbell Islands

B) Provide surveillance over the remote oceanic airspace of Mumbai, Chennai and Kolkata FIRs using space based ADS-B surveillance technology

ii. WP/7 by AAI on SAR agreements between India and Neighbouring States

The WP presented by AAI emphasized the need for establishment of Search and Rescue agreements with the neighbouring States and the establishment of Letter of Agreement/Arrangement on Operational matters between Search and Rescue Service Providers of neighbouring State. The paper noted that perhaps due to different administrative set-ups to deal with SAR activities in the neighbouring countries for the purpose of Search & Rescue and the complexity for consolidating the procedures involving all SAR agencies may be the cause for delay in SAR Agreements. In the fourth and concluding meeting of the Asia/Pacific Regional Search and Rescue Task Force meeting held in July 2015, it was discussed that a SAR agreement can be in the form of 'Letter of Agreement' (LOA) or a Memorandum of Understanding or other acceptable term indicating a lower form of arrangement for operational matters between SAR service providers (such as RCCs and/or RSCs) or a more formal agreement for arrangements between governments concerned. The two draft templates on the Search and Rescue Agreements with neighbouring States and Letters of Agreement for Operational Matters between SAR Service Providers were proposed through the paper.

India invited its SAR neighbours to review and take initiatives to formalise on mutually agreed basis the draft Letters of Agreement between neighbouring States and on Co-operation between RCCs/RSCs.

2.5 Agenda Item 5: Skill Development and Skill Enhancement of ATS Personnel

There was no discussion under this agenda item as no papers were presented.

2.6 Agenda Item 6: Communication/Navigation/Surveillance issues – including: Performance Based Navigation (PBN), Data link Services, FIT/CRA, and Surveillance data sharing amongst ANSPs.

- i. AAI presented IP/04 on PBN Implementation in Indian Terminal Airspace. The IP gave information about the PBN approaches designed for Delhi, Shamshabad, Mumbai, Ahmedabad and Lucknow airports and also about the PBN approaches for Calicut, Lucknow, Belgaum, Jaipur and Mumbai airports and being processed for approvals. The paper informed that India has developed in house capability to

develop, validate and implement PBN procedures. And that there is a plan to develop 48 LNAV, LNAV/VNAV and LPV procedures by Dec'2018.

- ii. AAI presented IP/05 on initiatives for improving HF Communication in India Airspace.

It was informed that, in order to mitigate the issue of degraded performance of HF receivers during adverse propagation conditions, AAI is strengthening the HF infrastructure at airports on priority. This includes establishment of Network Assisting Stations employing Best Signal Selection (BSS) technique along the western coast of India with the objective of augmenting Mumbai HF. Two remote locations geographically separated, one each at Trivandrum and

Chennai, were identified to install HF receivers thereby mitigating unsatisfactory local HF reception due fading of signals. These remote locations will be interconnected through terrestrial media which will introduce space diversity to reduce fading effect and selecting the best signal through Signal-to Noise ratio (SNR) voting. AAI is in the process of replacing HF Transmitters and Receivers which has outlived its life span.

A total quantity of 46 HF Receivers with estimate cost of INR 740 million and 29 HF Transmitters with estimate cost of INR 1240 million in Mumbai, Chennai, Delhi and Kolkata. The project is planned to be completed by March 2018. It is expected that with the complete revamping of HF Systems, the performance of HFRT in India will significantly improve in regard to redundancy, range, availability and reliability. In the discussion it was pointed out that HF communication in Arabian Sea needed drastic improvement and it was hoped that these efforts of AAI will bring the desired improvements.

- iii. WP08 was presented by AAI on AIDC implementation in India with adjacent ATS units in the sub region and the issues thereof. AAI presented the WP that summarized the present status of AIDC implementation in India & with adjacent ATSU's in the sub Region. The annexure to the paper gave exhaustive information about AIDC implementation considerations from the report of the third meeting of ATS inter-facility data communication task force meeting (APA TF/3) 26 – 28 April 2017. The status of AIDC in India is as follows,

LOCATION OF AIDC	AIDC SYSTEM PAIR	TARGET DATE OF IMPLEMENTATION
Chennai ACC	KUALALUMPUR ACC	With effect from 15-May-2017, AIDC has been implemented between Chennai and Kuala Lumpur with ABI and EST messages without voice confirmation. CDN is done with voice confirmation. TOC/AOC will be implemented later.
Chennai ACC	Male ACC	AIDC trials from 16 th October.
Chennai ACC	Yangon ACC	4Q2018

		The partner yet to communicate readiness
Delhi ACC	Karachi ACC	4Q2018
Delhi ACC	Lahore ACC	4Q2018
Kolkata ACC	Dhaka ACC	4Q2018
Kolkata ACC	Yangon ACC	-
Kolkata ACC	Kathmandu ACC	-
Mumbai OCC	Karachi ACC	2018
Mumbai OCC	Male ACC	16 th October 2017
Mumbai OCC	Muscat ACC	-
Mumbai OCC	Seychelles ACC	-
Varanasi ACC	Kathmandu ACC	-

2.7 Agenda Item 7: Review of ASIO UPR zone and follow-up actions

AAI presented WP/09 on trials for UPR flights commencing at KITAL. It was informed that the offer for operational trials for UPR flights which has been standing for last two years has been accepted by Qantas Airways and four such trials have taken place. The paper offered other partner airlines to participate in the trials..

2.8 Agenda Item 8: Review of INSPIRE Strategic Plan.

The meeting could not review the strategic plan but the members agreed to send suggestions to INSPIRE chair through emails.

2.9 Agenda Item 9: Updates on ASIOACG INSPIRE Work Programme V2.0

- i. Etihad airways presented a PPT for consideration by the meeting. The presentation which was very well received by the meeting stressed on the initiatives that can help industry to adopt measures that will help in carbon emission savings.
- ii. A brainstorming session was conducted to discuss various work programmes. BOASIO upper airspace UPR were discussed in details. IATA made a presentation regarding Upper Airspace UPR zone in BOBASIO region. The presentation noted that considering ATM enhancements, Airborne equipage and aircraft capabilities and performance it is possible to progress from fixed ATS route structure to Dynamic UPRs. The presentation stated that the proposed Upper Airspace BOBASIO UPR zone has potential to reduce carbon emissions by 60,000 Tons per annum. AAI in principle agreed to conduct paper trials for the same but no date for trials could be fixed.

2.10 Agenda Item 10: Summary of outcomes of BOBASIO, SAIOACG & Other Meetings affecting APAC/MID East/AFI Regions (e.g. meetings of CANSO, ICAO, IATA etc)

Secretariat presented IP/06 on summary of outcomes of two AAMA-SCM meetings.

2.11 Agenda Item 11: INSPIRE Annual Report 2016

It was decided by the meeting that as there haven't been any significant developments to report during the year, Annual report would not be published.

2.12 Agenda Item 12: Review and Update List of Open Action Items.

The List of Open Action Items updated at the end of meeting is attached as annexure to the report.

2.13 Agenda Item 13: Appointment of INSPIRE Chairman for 2018

As ATNS and ASA were not present at the meeting, discussion for INSPIRE Chairperson for 2018 did not take place. It was decided that present Chairperson should discuss the issue with ATNS and ASA.

2.14 Agenda Item 14: Any other business including meeting of ASIOACG 12 and INSPIRE 8 and inclusion of other partners in ASIOACG and INSPIRE.

ASIOACG and INSPIRE Chair expressed concern that very few partners have been attending the meetings recently. The combined meetings of ASIOACG INSPIRE along with BOBASIO were organized with the expectation that more partners would attend the meeting. But this also did not yield desired results. In this scenario various options for future meetings were discussed. One of the option was merging BIMT, ASIOACG and BOBASIO into one formal group and holding INSPIRE meeting combined with that group. But as many partners were not present it was decide to hold wider consultations on the issue through emails, teleconferences before proceeding further on the matter.

3. Conclusion.

The meetings were successful in meeting the agenda set before it. Cancellation of FLAS on ATS route A474, AIDC implementation between Maldives and India, RHS of 50 Nm at Mumbai/Male FIR boundary and UPRs through half degree waypoints at Mumbai/Male and Chennai/Male FIR boundary were some important decisions that were taken at the meeting. The continued absence of some partners was a matter of concern for the groups. But all the participants hoped that in future the groups would be able deliver greater benefits to the industry. All participants thanked AAI for arrangements. The meeting concluded with ASIOACG Chair Mr M C Dangi and INSPIRE Chair Mr R K Saxena thanking the participants and wishing them a safe journey home.

List of Participants

Annexure-I

BOBASIO7/BIMT5/ASIOACG12 & INSPIRE8

S. No	Name/Designation	Address/ Contact Details	Country/ Organization	BIMT	BOBASIO	ASIOACG / INSPIRE
1.	PRASHANT PRALHAD SANGLIKAR, ASSISSTANT DIRECTOR-SAFETY & FLIGHT OPS	Address: IATA, 702, DLF Coro. Park, PH3, MG Road, Gurgaon, 122002 Email: sanglikarp@iata.org P: +91-124-4977 105	IATA, India	✓	✓	✓
2.	CAPT. NITHAAR ZAIN, HEAD INTERNATIONAL AFFAIRS, IATA	Address: SIA Training Centre, 702, Upper Changi Road east, Singapore 486852 Email: Nithaar_zain@singaporeair.com.sg P: +65-6541-1023	IATA, Singapore	✓	✓	✓
3.	SEDA PROTUS, ASST. DIRECTOR, JOHANNESBURG	Address: 88 Stella Street, sandown mews, Sandton. Johannesburg, south Africa. Email: sedap@iata.org P: +27-11 5232737	IATA, South Africa		✓	✓
4.	MOHAMMAD MASUD RANA, ASST. DIRECTOR, CAA	Address: OPS Building Hazrat Shaljalal International Airport, Dhaka-1229 Email: mdmrana@yahoo.com +88-01913575853 F: +88-02-8901411	Bangladesh	✓	✓	✓
5.	MOHAMMAD SHAHABUDDIN, ASST. AERODROME OFFICER, CAA	Address: OPS Building Hazrat Shaljalal International Airport, Dhaka-1229 Email: shahabuddinac@gmail.com P: +880-2-8901404 F: +880-2-8901411	Bangladesh	✓	✓	✓

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6.	MD. NURUL ISLAM, DIRECTOR, ATS & AERODROME DIVISION, CAA	Address: CAAD HQRs, Kurmitola, Dhaka-1229 Email: datsaero@caab.gov.bd P: +880-2-8901404 F: +880-2-8901411	Bangladesh	✓	✓	✓
7.	MS. SABERA RAHMAN, SENIOR AERODROME, ATS & AERODROME DIVISION, OFFICER, CAA	Address: CAAD HQRs, Kurmitola, Dhaka-1229 Email: mitasr@gmail.com P: +880-2-8901404 F: +880-2-8901411	Bangladesh	✓	✓	✓
8.	FOO KAIYU, AIR TRAFFIC CONTROL MANAGER, CAAS	Address: Singapore Changi Airport, PO Box 1, Singapore-918141 Email: Foo_kaiyu@caas.gov.sg P: +65 9754 1347 F: +65 6441 0221	Singapore		✓	
9.	JIMIT SINGH, SENIOR TECHNICAL OFFICER, CAAS	Address: Singapore Changi Airport, PO Box 1, Singapore-918141 Email: Jimit_singh@caas.gov.sg P: +65 9003 0245 F: +65 6441 0221	Singapore		✓	
10.	NG KHENG ANG MARCUS, SENIOR AIR TRAFFIC CONTROL OFFICER, CAAS	Address: Singapore Changi Airport, PO Box 1, Singapore-918141 Email: Marcus_ng@caas.gov.sg P: +65 8321 9990 F: +65 6441 0221	Singapore		✓	
11.	ESMEE SAMSON, GM ATM, SEYCHELLES CAA	Address: PO BOX 181, Victoria, Seychelles Email: esamson@scaa.sc P: +248 4384181 M: +248 2527206 F: +248 4384179	Seychelles		✓	✓

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12.	LOUIS MANCIENNE, MANAGER ATM, SEYCHELLES CAA	Address: PO BOX 181, Victoria, Seychelles Email: lmancienne@scaa.sc P: +248 4384185 M: +248 2513566 F: +248 4384179	Seychelles		✓	✓
13.	SOE PAING, DIRECTOR ANSP, DEPARTMENT OF CIVIL AVIATION	Address: Yangon International Airport, MINGALARDOL Township, Yangoon-11021, Union of Myanmar Email: Soepng1@gmail.com P: +95 1 533008 F: +95 1 533000	Myanmar	✓	✓	
14.	AUNG ZAW THEIN, ASSISTANT GENERAL MANAGER ANSP, DEPARTMENT OF CIVIL AVIATION	Address: Yangon International Airport, MINGALARDOL Township, Yangoon-11021, Union of Myanmar Email: azawthein@gmail.com P: +95 1 533041 F: +95 1 533000	Myanmar	✓	✓	
15. I	ISSA ABDULLAH SAID AL RAWAHI, MANAGER ATS, ETIHAD	Address: New Shahamah, Abhu Dabi, UAE Email: jalrawahi@etihad.ae P: + 971 2 511 4525 F: + 971 2 511 3099 M: + 971 56 129 4351	UAE		✓	✓
16.	IBRAHIM HAMEED, AGM ATS, MACL	Address: Email: i.hameed@macl.aero P: +9603337114 F: +9603309905	Maldives			✓
17.	MOOSA SHAHID HUSSAIN, MANAGER ATS, MACL	Address: Email: moosa.h@macl.aero P: +9603322214	Maldives			✓

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		F: +9603309905				
18.	R. D. SERVANSINGH, DEPUTY DIRECTOR OF CIVIL AVIATION	Address: SSR International Airport, PLAINU magnien, Mauritius Email: rservansingh@govmu.org P: +230 52550992 F: +230 6373164	Mauritius		✓	✓
19.	CAPT. ROBERT STEPHANE, AIR MAURITIUS	Address: Air Mauritius Email: stefrobert@intnet.mu P: +230 525 10 152	Mauritius		✓	
20.	CAPT. MALHERBES GILLIAN, AIR MAURITIUS	Address: Air Mauritius Ltd. Email: gmalhebe@airmaruitius.com P: +230 525 14 574	Mauritius		✓	
21.	S K CHAUDHARY, DIRECTOR, CAAN	Address: Civil Aviation Authority of Nepal, Babar Mahal, Kathmandu. Email: Chaudhary.sudhir754@gmail.com P:+977 9841320087 F:+977 14262516	Nepal		✓	✓
22.	SITARAM BHANDARI, DEPUTY DIRECTOR, CAAN	Address: Civil Aviation Authority of Nepal, Tiacao, Kathmandu. Email: sitarambhandari@yahoo.com P: +977 9841232768 F: +977 14262516	Nepal		✓	✓
23.	SUWARN RAJ UPADHYAYA, DEPUTY DIRECTOR, CAAN	Address: ANS Safety Standard department, Civil Aviation Authority of Nepal, Kathmandu. Email: suwarnraj@yahoo.com P: +977 9841540578	Nepal		✓	✓

S. No	Name/Designation	Address/ Contact Details	Country/ Organization	BIMT	BOBASIO	ASIOACG / INSPIRE
		F: +977 14262926				
24.	MR. SUNUN NIMFUK, SENIOR DIRECTOR ATM NETWORK BUREAU	Address: Aeronautical Radio Of Thailand LTD, 102 Sai Ngamduplee, Sathon, Bangkok-10120, Thailand Email: Sunun.ni@aerothai.co.th P: +66 22859902 F:+ 66 22878375	Thailand	✓	✓	
25.	MR. BANCHA KINGBUALUANG, ATM NETWORK MANAGER	Address: Aeronautical Radio Of Thailand LTD, 102 Sai Ngamduplee, Sathon, Bangkok-10120, Thailand Email: Bancho.ki@aerothai.co.th P: 66 +089-8521881	Thailand	✓	✓	
26.	MR. ARAM LERTLUM, ATC MANAGER	Address: : Aeronautical Radio Of Thailand LTD, 102 Sai Ngamduplee, Sathon, Bangkok-10120, Thailand Email: Aram.le@aerothai.co.th P:+6622859650 F:+6622859745	Thailand	✓	✓	
27.	MS. SAIFON OBROMSOOK,	Address: : Aeronautical Radio Of Thailand LTD, 102 Sai Ngamduplee, Sathon, Bangkok-10120, Thailand Email: Saifon.ob@aerothai.co.th P:+6622878291 F:+6622878155	MAAR	✓	✓	✓

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28.	MS. NATTAMON THAVORNPITAK	Address: : Aeronautical Radio Of Thailand LTD, 102 Sai Ngamduplee, Sathon, Bangkok-10120, Thailand Email: Nattamon.th@aerothai.co.th P:+6622878893 F:+6622878155	MAAR	✓	✓	✓
29.	M C Dangi, ED (ASM), AAI	Address: Email: P: F:	India	✓	✓	✓
30.	Pradeep Kandoth, GM (ATM), Chennai, AAI	Address:O/O GM (ATM) ATS Complex Chennai Airport Chennai- 600027 Email:vomm.gmatm@aai.aero P:9435592834 F:	India	✓	✓	✓
31.	M P Rajasekharan, Jt. GM (ATM), Chennai	Address:o/o GM(ATM) ATS Complex Chennai Airport Chennai- 600027 Email:mpr1825@gmail.com P:8939538106 F:	India	✓	✓	✓
32.	A P Udayanarayanan, Jt. GM (ATM), Chennai	Address: Email: P: F:	India	✓	✓	✓
33.	B K Sarkar, GM (ATM), Kolkata	Address:O/O GM(ATM) , Kolkata Airport AAI, RHQ KOLKATA Email:gmatmkol@aai.aero P:09432201556 F:	India	✓	✓	✓

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34.	S K Sikdar, Jt. GM (ATM), Kolkata	Address: O/O GM(ATM) , Kolkata Airport AAI, RHQ KOLKATA Email:sikdar@aai.aero P:09331037535 F:	India	✓	✓	✓
35.	R K Saxena, GM (ATM), Mumbai	Address: 0-10/4 New Airport Colony Vile Parle (E) Mumbai 400099 Email:gmatmmum@aai.aero P:09969009070 F:	India	✓	✓	✓
36.	Sudeep Sardar, Jt.GM (ATM), Mumbai	Address:CSI Airport Mumbai Email: sksardar@aai.aero P:09029787609 F:	India	✓	✓	✓
37.	A B Joshi, Jt.GM (ATM), Mumbai	Address: Email: P: F:	India	✓	✓	✓
38.	R G Lama, GM (ATM), NER	Address: Email: P: F:	India	✓	✓	✓
39.	Shyamali Halder, Jt. GM (ATM), Guwahati	Address:LGBI Airport Guwahati Email:jtgmateght@aai.aero P:08902498732 F:	India	✓	✓	✓
40.	V S P Chinson, GM (ATM), Bengaluru	Address:DI, AAI Colony, 16 Cambridge Layout , bangalore Email:apdbangalore@aai.aero P:08693846600	India	✓	✓	✓

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41.	O S Ekka, GM (ATM), Hyderabad	Address:RGI Shamshabad Hyderabad Email:gmatmhial@aai.aero P:09866212756 F:	India	✓	✓	✓
42.	R D Kamble, Jt.GM (ATM), Nagpur	Address:flat no:301, 78/3 sukriti apartment ujwalnagar nagpur Email: vanp.ats@aai.aero ; rdkamble@aai.aero P:08333006931 F:	India	✓	✓	✓
43.	M Balachandran, , Jt.GM (ATM), Trivandrum	Address:Trivandrum International Airport, Vallakkadavu , Shangumukham Trivandrum - 695008 Email:mbalac@aai.aero P:09483543099 F:	India	✓	✓	✓
44.	Amit Goel, Jt. GM (ATM), Varanasi	Address:LBSI Airport, BABATPUR, Varanasi - 221006 Email: vibn.ats@aai.aero P:09490732508 F:	India	✓	✓	✓
45.	J S Sandhu, GM (ATM), NR	Address: Email:jssandhu@aai.aero P:09560568484 F:	India	✓	✓	✓
46.	A K Bhardwaj, GM (ATM), Delhi	Address: Email: P: F:	India	✓	✓	✓

S. No	Name/Designation	Address/ Contact Details	Country/ Organization	BIMT	BOBASIO	ASIOACG / INSPIRE
47.	Manoj Sinha, Jt.GM (ATM), Delhi	Address:NATS COMPLEX IGI AIRPORT NEW DELHI 110037 Email: sinhamk11@gmail.com P:099100116968 F:	India	✓	✓	✓
48.	Dr. G Manish, Jt.GM (ATM), Delhi	Address: NATS COMPLEX IGI AIRPORT NEW DELHI 110037 Email:gmanish1@aai.aero P:09968607800 F:	India	✓	✓	✓
49.	K Murali, JGM (ATM), CATFM	Address:o/o ED(ATFM) AAI, CHQ, NEW DELHI Email:k_murali@aai.aero P:0944470087 F:	India	✓	✓	✓
50.	Ravi Tirkey, AM (ATM), Delhi	Address: NATS COMPLEX IGI AIRPORT NEW DELHI 110037 Email:ravtirkey@aai.aero P:9873002023 F:	India	✓	✓	✓
51.	Shibu Robert, Jt. GM (ATM), CHQ	Address:o/o ED(ATM), AAI, CHQ, DELHI Email:srobert@aai.aero P:09910170112 F:	India	✓	✓	✓
52.	A K Deva, AGM (ATM), CHQ	Address:o/o ED(ATM), AAI, CHQ, DELHI Email:anild@aai.aero P:08826175993 F:	India	✓	✓	✓
53.	J. Purkayastha, Jt. GM (ATM), CHQ	Address:H-3/24 Mahavir Enclave New Delhi- 110045 Email:jpurkayastha@gmail.com P:09811299652	India	✓	✓	

S. No	Name/Designation	Address/ Contact Details	Country/ Organization	BIMT	BOBASIO	ASIOACG / INSPIRE
54.	Yogendra Rohilla, Jt. GM (ATM), CHQ	Address:o/o ED(ATFM), RGB safdarjung Airport Email:yogendra@aai.aero P:09910840303 F:	India	✓	✓	✓
55.	Satymave Gupta, Jt. GM (ATM), CHQ	Address:o/o GM(AIS),CHQ, RGB- new delhi Email:satyamav1@gmail.com P:09971005811 F:	India		✓	
56.	Manjit Singh, AGM (ATM), CHQ	Address:AAI, CHQ, RGB New Delhi Email:smanjit@aai.aero P:09899004655 F:	India	✓		
57.	S. K. Saharawat, AGM (ATM), CHQ	Address:AAI, CHQ, RGB New Delhi Email: ssaharawat@aai.aero P:08800342344 F:	India	✓		
58.	Dheeraj Gupta, AGM (ATM), CHQ	Address: Email: P:	India			✓(20 th)
59.	Mukesh Aggarwal, Manager (ATM), CHQ	Address: Email: P:	India			✓(21 st)
60.	S Suresh, Jt. GM (ATM), CHQ	Address: R.No- A409, 4 th Floor, C-ATFM, New Delhi Email: suresh64@aai.aero P:09205341964 F:	India	✓	✓	✓

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61.	D S Raghavan, Jt. GM (AVS), CHQ	Address:AVS DTE, CHQ,AAI NEW DELHI Email:draghavan@aai.aero P:09958200230 F:	India	✓	✓	✓
62.	Smitha T, Jt. GM (CNS-P), CHQ	Address: RGB, CHQ,AAI Email: smitha@aai.aero P:9995413740 F:	India	✓	✓	✓
63.	S K Purwar, GM (ASM), CHQ	Address: RGB, CHQ,AAI Email: skpurwar@aai.aero P: +919899820195 F:+91 11 24629012	India	✓	✓	✓
64.	D Dilip Kumar, Jt. GM (ASM), CHQ	Address: Email: ddilipkumar@aai.aero P: +91 7042400747 F:	India	✓	✓	✓
65.	G Sambath Kumar, Jt. GM (ASM), CHQ	Address: Email: sambathkumar@aai.aero P: +91 9910065943 F: +91 11 24617385	India	✓	✓	✓
66.	Mridul Rajan, DGM (ASM), CHQ	Address: Email: P: F:	India	✓	✓	✓
67.	Rajeev Kumar, Manager (ASM), CHQ	Address: Email: P:	India	✓	✓	✓

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68.	Ajit Singh, AM (ASM), CHQ	Address: Email: P:	India	✓	✓	✓
69.	Abhijeet Goyal, AM (ASM), CHQ	Address: Email: P:	India	✓	✓	✓
70.	Gaurav Gupta, AM (ASM), CHQ	Address: Email: P:	India	✓	✓	✓
71.	P Balachandran, Executive –Flt Ops, Air India	Address: Email: pbalachandran@airindia.in P: +91 9867278700	India	✓		
72.	SPS Narli, Associate Director - Performance Management, Indigo	Address:Global Business Park Tower C, Level 4, Gurgaon Email: surinder.narli@goindigo.in P:09818292737 F:	India	✓	✓	✓
73.	Capt. Sarvesh Gupta, Senior Commander, Jet Airways	Address: Email: P:	India	✓	✓	
74.	Bharat Bhushan, DGCA	Address: Email: P:	India	✓	✓	✓

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75.	V K Mishra, Jt. GM (ATM), CHQ	Address:RGB, CHQ, AAI Email: vkmishra@aai.aero P:09811336094 F:	India	✓	✓	
76.	D Moitra, Jt. GM (ATM), CHQ	Address: Email: dmoitra@aai.aero P: F:	India			✓
77.	S Ghosh, GM(CNS) Kolkata	Address:R47I, Kolkata Airport, Kolkata Email: gmcnsvecc@aai.aero P:08902499903 F:	India	✓	✓	✓
78.	S Perumal, GM(CNS) Chennai	Address:ATS complex Mennanbakkam Chennai Airport Email: sperumal@aai.aero P: F:	India	✓	✓	✓
79.	P Mondal, GM (CNS) Mumbai	Address:O-1/4, New Airport Colony Vile Parle(E), Mumbai -400099 Email:gmcnsmum@aai.aero P: F:	India	✓	✓	✓
80.	Soran Singh, GM(CNS) Delhi	Address:A-704 Maharani Appt, Sec-22 Plot No 15B Dwarka New Delhi Email:gmcnsdelhi@aai.aero P:	India	✓	✓	✓
81.	J B Singh, Jt GM(CNS),CNS-OM	Address: CHQ CNS-OM DTE Email:jbsingh@aai.aero P:09818283119 F:	India	✓	✓	✓

S. No	Name/Designation	Address/ Contact Details	Country/ Organization	BIMT	BOBASIO	ASIOACG / INSPIRE
82.	A S Yadav, DGM(CNS), CNS-OM	Address:CHQ(CNS-OM) Email:asyadav@aai.aero P:09599186558 F:	India	✓	✓	✓
83.	R K Gupta, DGM(CNS), CNS-OM	Address: Email: P: F:	India	✓	✓	✓
84.	Sudhanshu Gupta, Jt. GM (ATM), Mumbai	Address: Email: P: F:	India			
85.	Mahua B Adikary, Jt. GM (ATM), Kolkata	Address:NSCBI AIRPORT KOLKATA Email:mahua@aai.aero P:09903050374 F:	India	✓	✓	✓
86.	FRANCIS OKAME KENYIA AIRWAYS KENYA	Address: P.O BOX 19002-00501 Nairobi Email: francis.okame@kenya-airways.com P: +254 741 900 359				
87.	SC BADOLA Jt. Gm (ATM)	Address: CHQ AAI RGB Email: scbadola@aai.aero P: 08448231002				